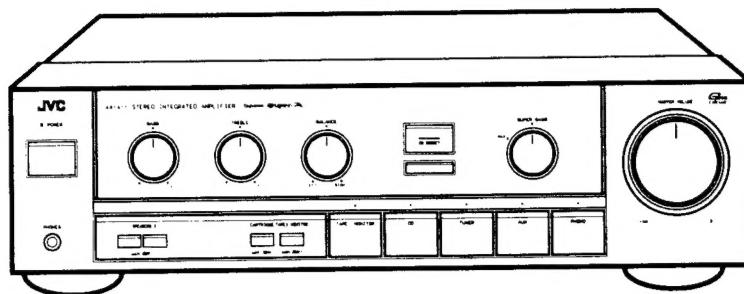


JVC

SERVICE MANUAL

STEREO INTEGRATED AMPLIFIER

MODEL No. **AX-411BK**



Contents

	Page	Page	
Safety Precautions.....	1-2	Block Diagram	1-8
Specifications.....	1-3	Internal Block Diagrams of ICs.....	1-9
Front Panel.....	1-4	Connection Diagram	1-10
Operation.....	1-5	Schematic Diagrams	Insertion
Removal Procedures.....	1-6	Printed Circuit Boards.....	Insertion
Adjustment Procedures	1-7	Parts List.....	Separate Volume Insertion

Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purpose. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by (Δ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)

After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.

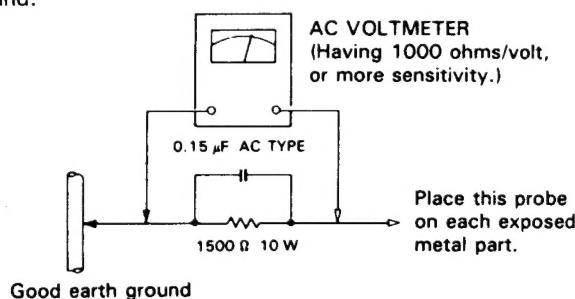
Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a $1,500 \Omega$ 10 W resistor paralleled by a $0.15 \mu\text{F}$ AC-type capacitor between an exposed metal part and a known good earth ground.

Measure the AC voltage across the resistor with the AC voltmeter.

Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

Specifications

AX-411BK

OVERALL CHARACTERISTICS

Output power:

100 watts per channel into 4 ohms at 1 kHz

(DIN).

70 watts per channel into 8 ohms at 1 kHz

(DIN).

65 watts per channel, min. RMS, both channels driven, into 8 ohms from 20 Hz to 20 kHz, with no more than 0.007% total harmonic distortion.

65 watts per channel, min. RMS, both channels driven, into 8 ohms at 1 kHz with no more than 0.003% total harmonic distortion. (measured by JVC Audio Analyzer System)

Total harmonic distortion : 0.007% (20 Hz — 20 kHz, 8 ohms) at 65 watts

Intermodulation distortion : 0.007% (60 Hz : 7 kHz = 4 : 1, 8 ohms) at 65 watts

Power band width : 5 Hz — 50 kHz (IHF, 0.05%, 8 ohms both channels driven)

Frequency response : 5 Hz — 80 kHz +0, -3 dB (8 ohms)

Damping factor : 90 (1 kHz, 8 ohms)

Input terminals

Input sensitivity/

impedance (1 kHz)

PHONO (MM) : 2.5 mV/47 kohms

PHONO (MC) : 200 µV/100 ohms

CD/AUX/ : 200 mV/43 kohms

TUNER/TAPE 1, 2

Signal-to-noise ratio : 85 dB ('66 IHF)

PHONO (MC) : 66 dB ('66 IHF)

CD/AUX/ : 104 dB ('66 IHF)

TUNER/TAPE 1, 2

PHONO (MM) : 82 dB ('78 IHF)

(REC OUT)

PHONO (MC) : 74 dB ('78 IHF)

(REC OUT)

CD/AUX/ : 76 dB ('78 IHF)

TUNER/TAPE 1, 2

(SP OUT)

PHONO (MM) : 67 dB (DIN)

CD/AUX/ : 68 dB (DIN)

TUNER/TAPE 1, 2

Tone controls : TREBLE: +8 ±1 dB

-8 ±1 dB

(at 10 kHz)

BASS: +8 ±1 dB

-8 ±1 dB

(at 100 Hz)

SUPER BASS : +6 dB (at 50 Hz)

(Volume control at

-30 dB position)

EQUALIZER

PHONO overload capacity

PHONO (MM) : 100 mV (0.02% THD)

PHONO (MC) : 8 mV (0.04% THD)

PHONO RIAA deviation

PHONO (MM) : ±0.3 dB (20 Hz — 20 kHz)

PHONO (MC) : ±0.5 dB (20 Hz — 20 kHz)

Recording output

Output level/ impedance TAPE REC-1, 2 : 200 mV/Maximum 2 kohms

GENERAL

Dimensions : 435 (W) x 127 (H)

x 310 (D) mm

(17-3/16" x 4-15/16"

x 12-1/16")

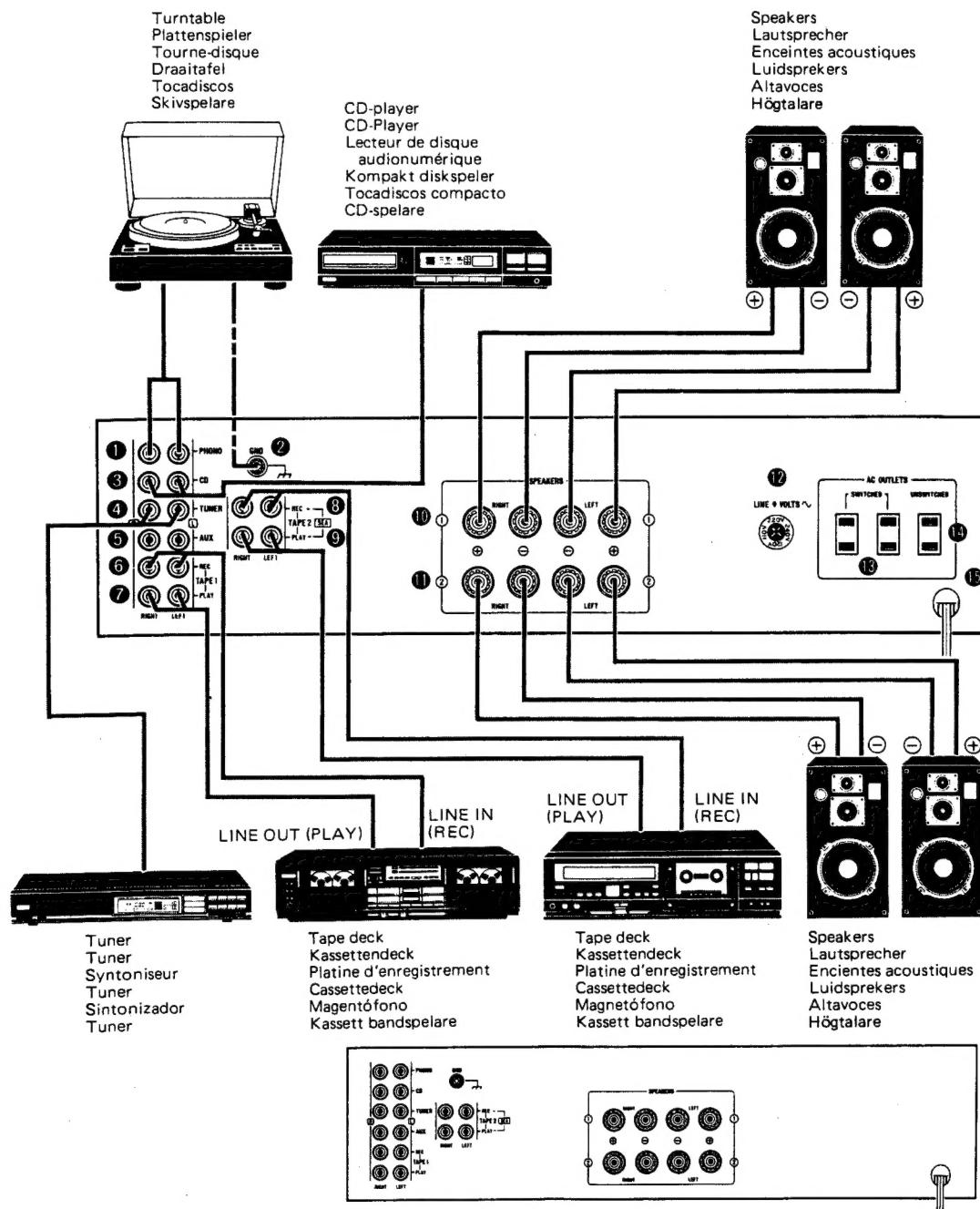
Weight : 7.5 kg (16.5 lbs.)

Design and specifications subject to change without notice.

POWER SPECIFICATIONS

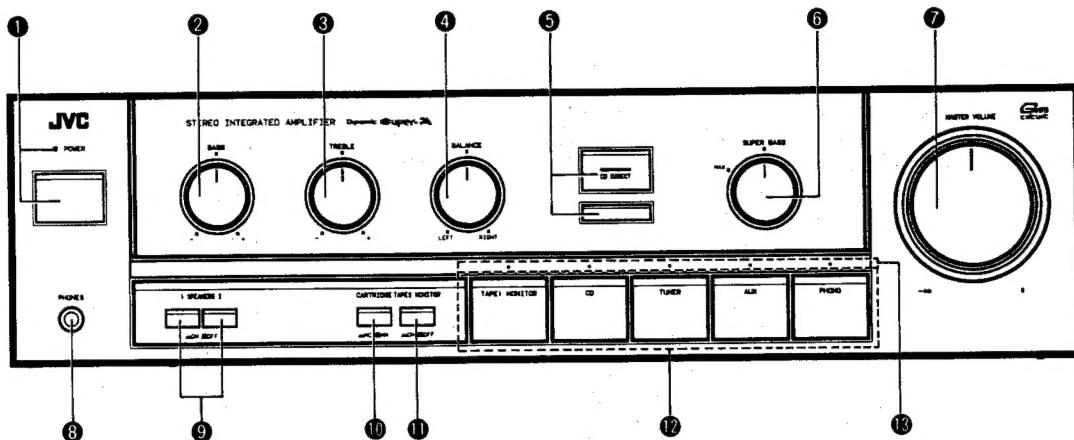
Areas	Line voltage & frequency	Power consumption	
		AX-311BK	AX-411BK
Continental Europe	AC 220 V~, 50 Hz	220 watts	240 watts
U.K.	AC 240 V~, 50 Hz	510 watts	590 watts
Australia			
Other areas	AC 110/120/220/240 V~ selectable, 50/60 Hz	220 watts	240 watts

CONECTION DIAGRAM ANSCHLUSSDIAGRAMM SCHEMA DE RACCORDEMENTS AANSLUITINGSSCHEMA DIAGRAMA DE CONEXIONES ANSLUTNINGSSCHEMA



Provided on units for Continental Europe, the United Kingdom and Australia.
 Vorhanden an Geräten für Kontinentaleuropa, Großbritannien und Australien.
 Fourni sur les appareils pour l'Europe Continentale, le Royaume-Uni et l'Australie.
 Aanwezig op apparaten voor het Europese Vasteland, Groot-Brittannië en Australië.
 Se provee en las unidades para Europa Continental, el Reino Unido y Australia.
 För kontinentala Europa, Storbritannien och Australien.

FRONT PANEL



① POWER and indicator

Press this button to turn the power on. To turn the power off, press it again. The indicator lights when the POWER button is pressed to on.

Notes:

- When power is not supplied to this amplifier for 2 — 3 days, the source select button pressed before the power was switched off may be lost when the power is switched on again. If this happens, set the buttons, etc. again.
- An electronic source selector is used in this unit. When the POWER button is first switched on, two or more sources or no source may be selected. Make sure to input the source select data by pressing one of the source selectors.
- If the POWER button is pressed repeatedly to switch on and off too quickly, the same phenomenon as the above will occur.

② BASS

Turn clockwise to boost bass response and counterclockwise to decrease it.

③ TREBLE

Turn clockwise to boost treble response and counterclockwise to decrease it.

④ BALANCE

Balances the volume between the left and right speakers. Usually set it to the center click position.

⑤ CD DIRECT and indicator

Press this button to enjoy listening to the CD with good sound quality. The indicator lights and the signal fed from the CD terminals is directly connected to the volume, bypassing the circuits on the way, thus allowing you to enjoy listening to an improved sound quality.

Note:

- While the CD DIRECT button is pressed, the reproduced sound does not change even if the source selector (including TAPE 2 MONITOR) and BALANCE volume are operated, press the CD DIRECT button again to turn the indicator off when using these.

⑥ SUPER BASS

When sound volume is turned down, the human ear tends to become less aware of bass sound. At low sound levels the SUPER BASS knob can be used to emphasize the bass sound. For ordinary use, the knob should be set to the normal position.

⑦ MASTER VOLUME

Controls the volume of the speakers and headphones.

⑧ PHONES (Headphones jack)

Plug stereo headphones into this jack for private listening.
If you want to listen to sound from the headphone only, press the SPEAKERS buttons to "OFF".

⑨ SPEAKERS

Press to switch the speakers connected to the SPEAKERS 1 or 2 terminals on (—) and off (—).

⑩ CARTRIDGE

MC (—): Press in when using an MC cartridge having an output of less than 0.5 mV.
MM (—): Press again when using an MM or MC cartridge having an output of more than 0.5 mV.

⑪ TAPE 2 MONITOR

ON (—): Set to this position to listen to the tape deck connected to the TAPE 2 terminals of this unit. If your tape deck is of the 3-head type, you can monitor the recorded sound while recording by setting this button to ON.
OFF (—): Keep this button set to this position, except when you want to listen to the tape deck connected to the TAPE 2 terminals of this unit.

⑫ Source selector

TAPE 1 MONITOR
Press to listen to a tape deck connected to the TAPE 1 terminals.

CD

Press to listen to the source connected to the CD terminals.

TUNER

Press to listen to radio broadcasts by a tuner connected to the TUNER terminals.

AUX

Press to listen to the source connected to the AUX terminals.

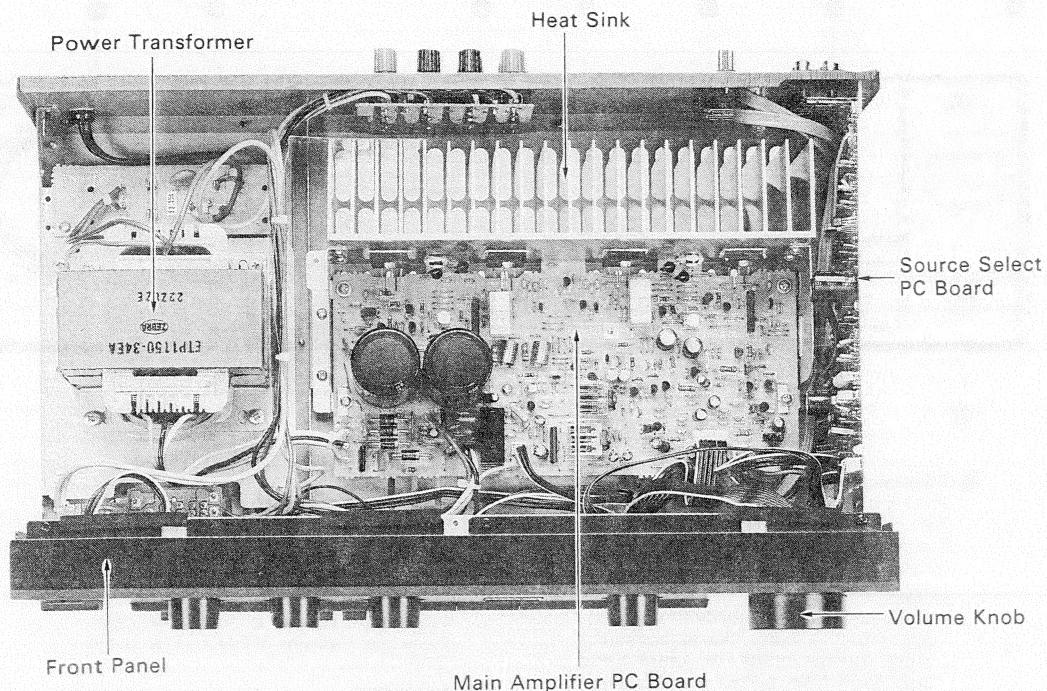
PHONO

Press to listen to records played by a turntable connected to the PHONO terminals.

⑬ Source indicator

The indicator corresponding to the source select button pressed lights.

Removal Procedures



■ Removing the Top Cover

1. Remove six screws.
2. Remove the top cover by lifting up its rear section and pulling it backward while holding it on incline.

■ Removing the Front Panel

1. Remove the top cover.
2. Pull out the volume knob.
3. Remove three plastic rivets on the upper part of the front panel and three screws from the lower part.

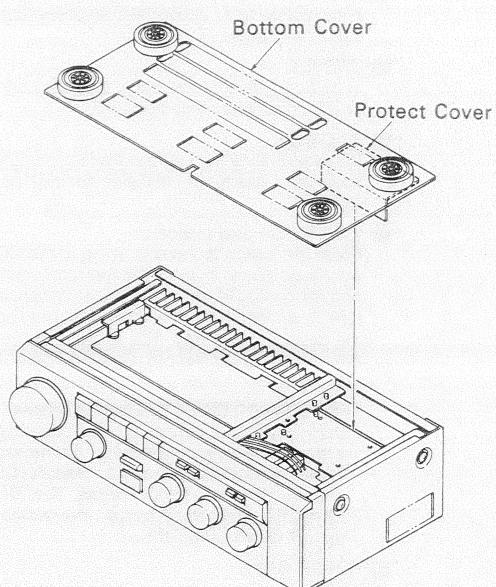
■ Removing the Bottom Cover

1. Remove 17 screws fixing the bottom cover.

Note: When installing the bottom cover, properly insert the protect cover between the power transformer and the power primary PC board as shown in the figure at right.

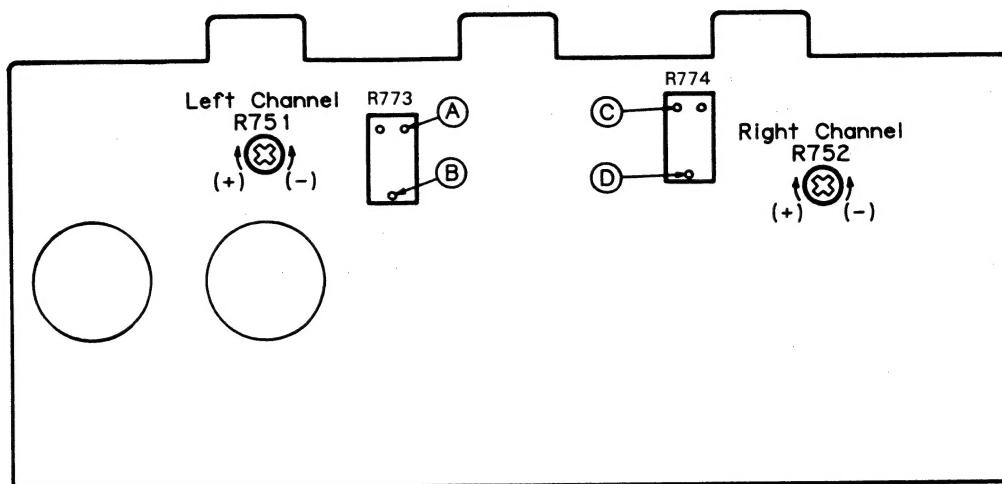
■ Removing the Power Transistors

1. Remove the top cover.
2. Remove the bottom cover.
3. Remove the retaining screw from the defective power transistor and replace it.



Adjustment Procedures

■ Power Amplifier Idling Adjustment

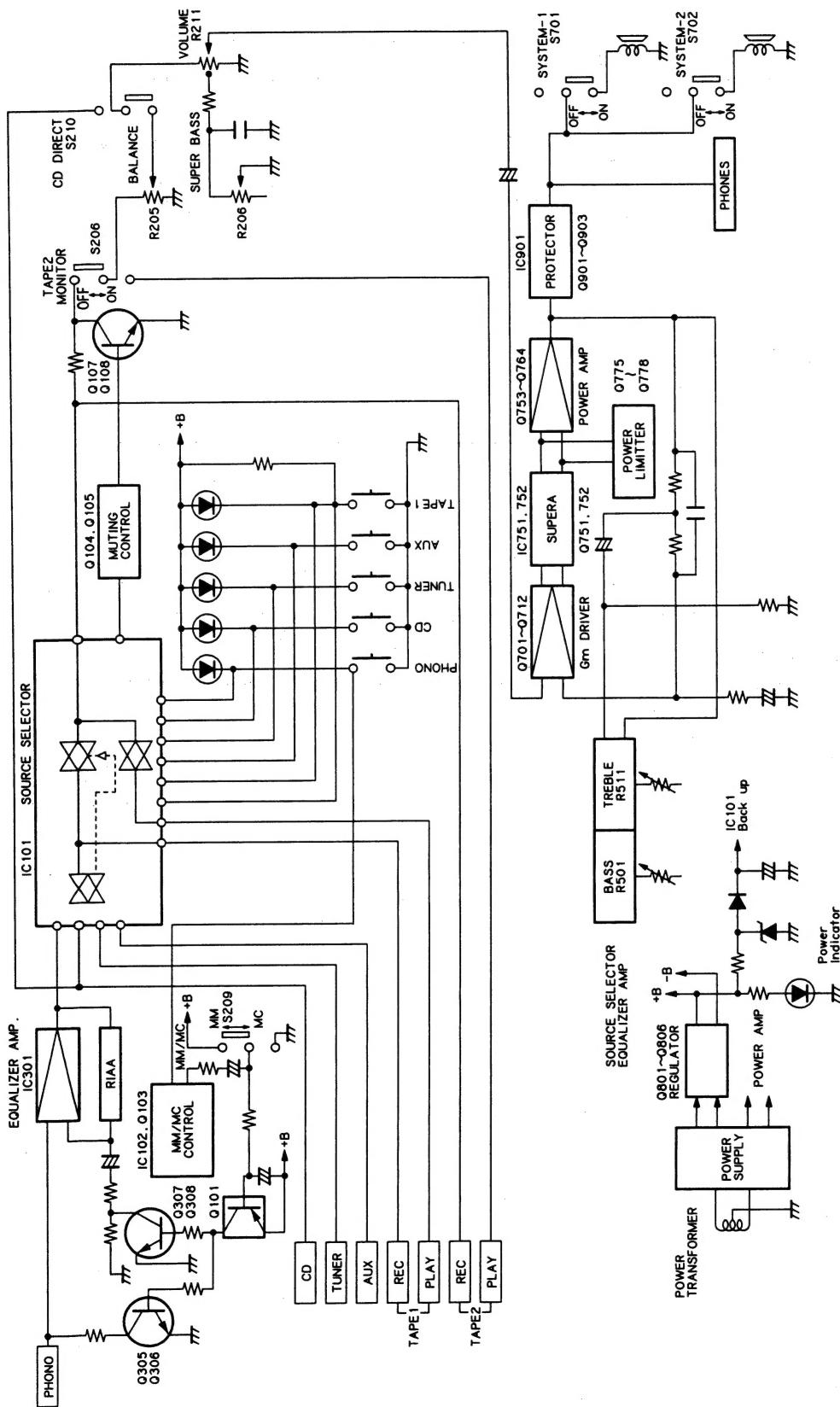


1. Before turning on the power, turn the the semi-fixed resistors (R751 for L channel and R752 for R channel) of the power amplifier circuit board fully counterclockwise.
2. Adjust the semi-fixed resistor (R751 and R752) so that the voltage at the following test points of the power amplifier circuit board is within a range of 3 ~ 5 mV after the power is turned on.
 - L channel: Measure the voltage between test point A (emitter of Q761) and output at the test point B.
 - R channel: Meaure the voltage between test point C (emitter of Q762) and output at the test point D.

3. Readjust resistors R751 and R752 about 10 minutes after the power is turned on (the heatsink temperature must be sufficiently high) so that the voltage at the test points becomes 11 mV.
Confirm that the voltage does not vary when the heat-sink temperature increases further.

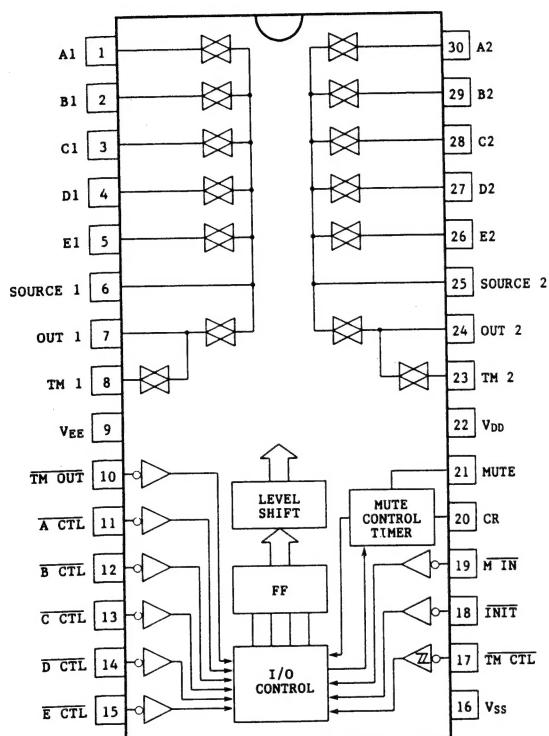
Note: Be sure to perform the measurement with the probes and cabinet of the measuring equipment separated from the grounding terminals of AX-411BK or other measuring equipment.

Block Diagram

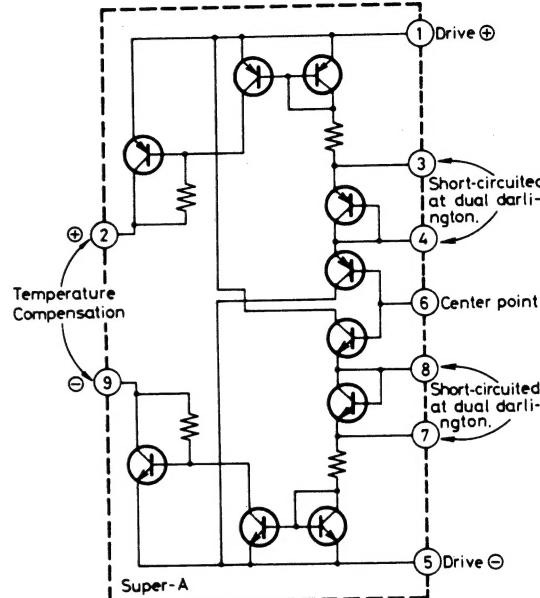


Internal Block Diagrams of ICs

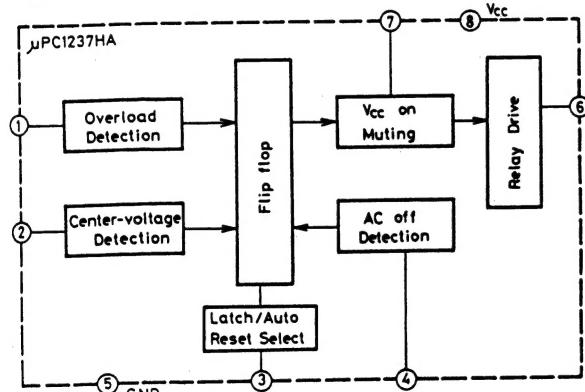
■ LC7818 (IC101): Analog Switch



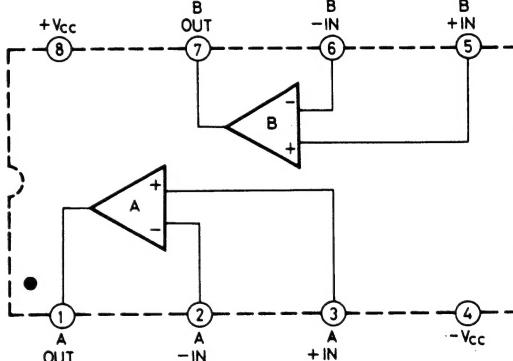
■ VC5022 [X, Y] (IC751, IC752): Super-A



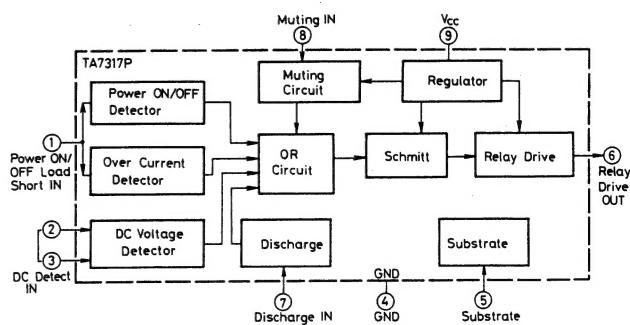
■ μPC1237HA (IC901): Relay Driver



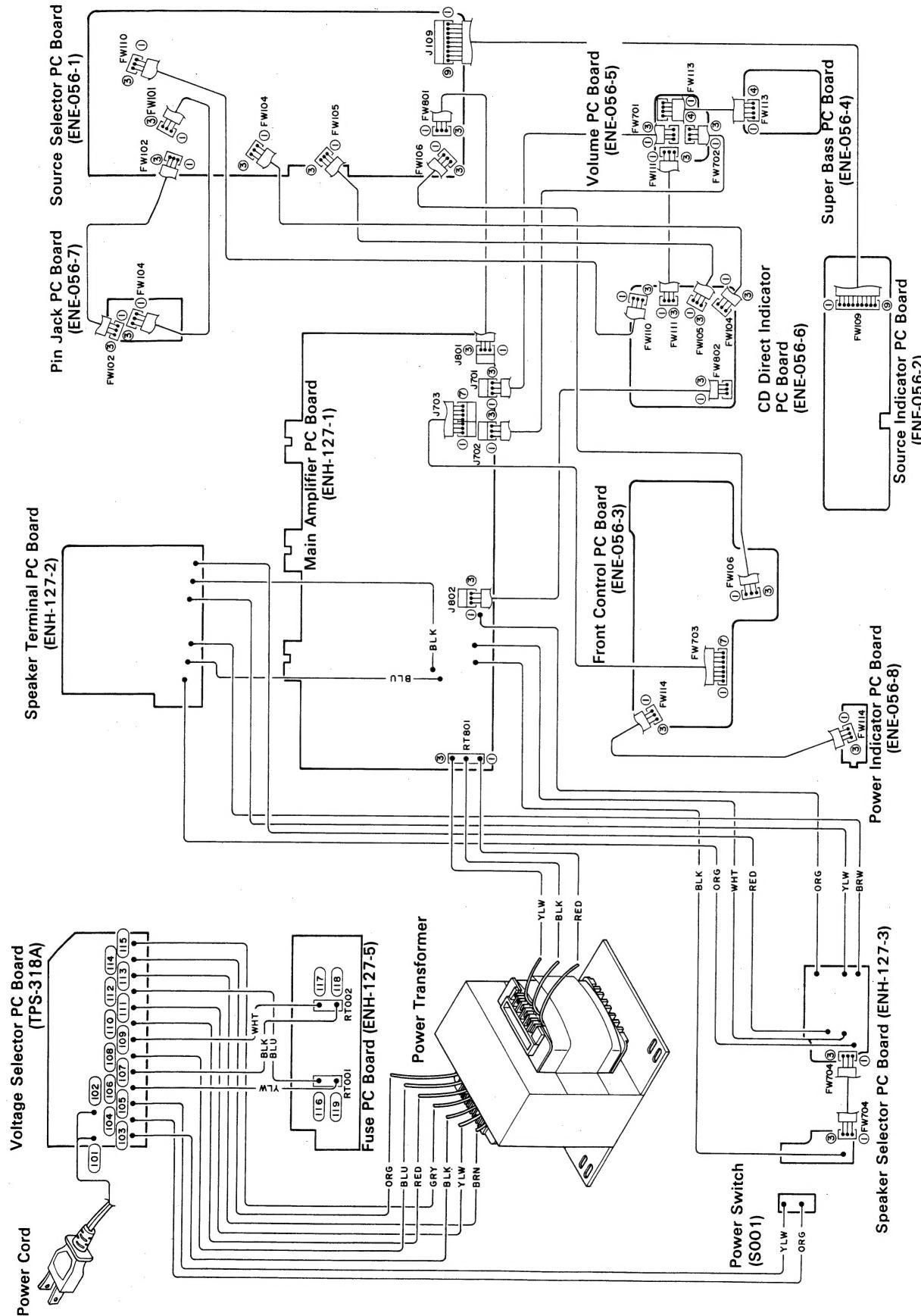
■ NJM4560DD (IC301): Dual OP Amp.



■ TA7317P (IC102): Driver

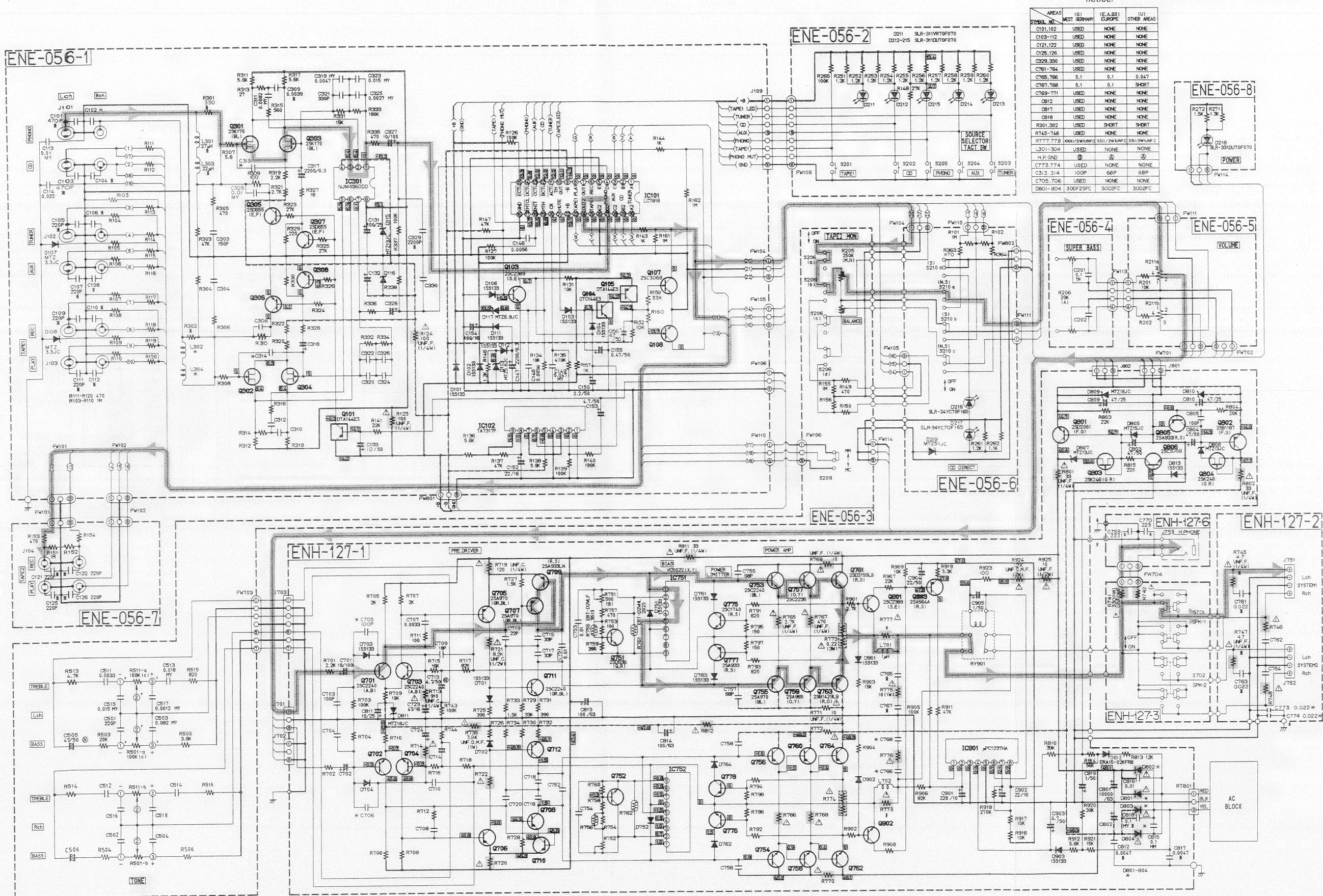


Connection Diagram

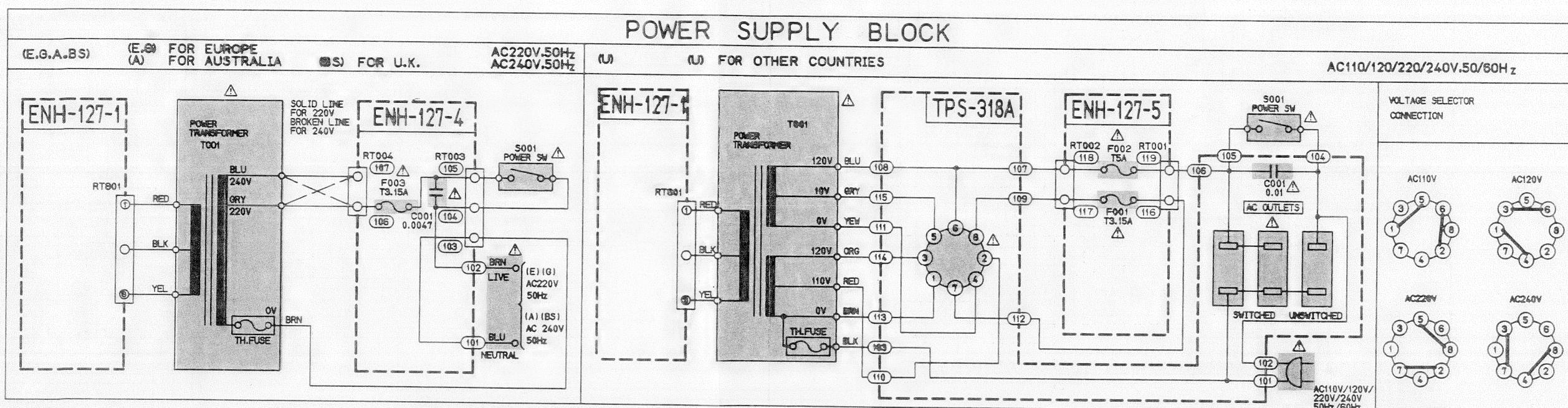


Schematic Diagrams

(1) Source Select and Main Amplifier Section

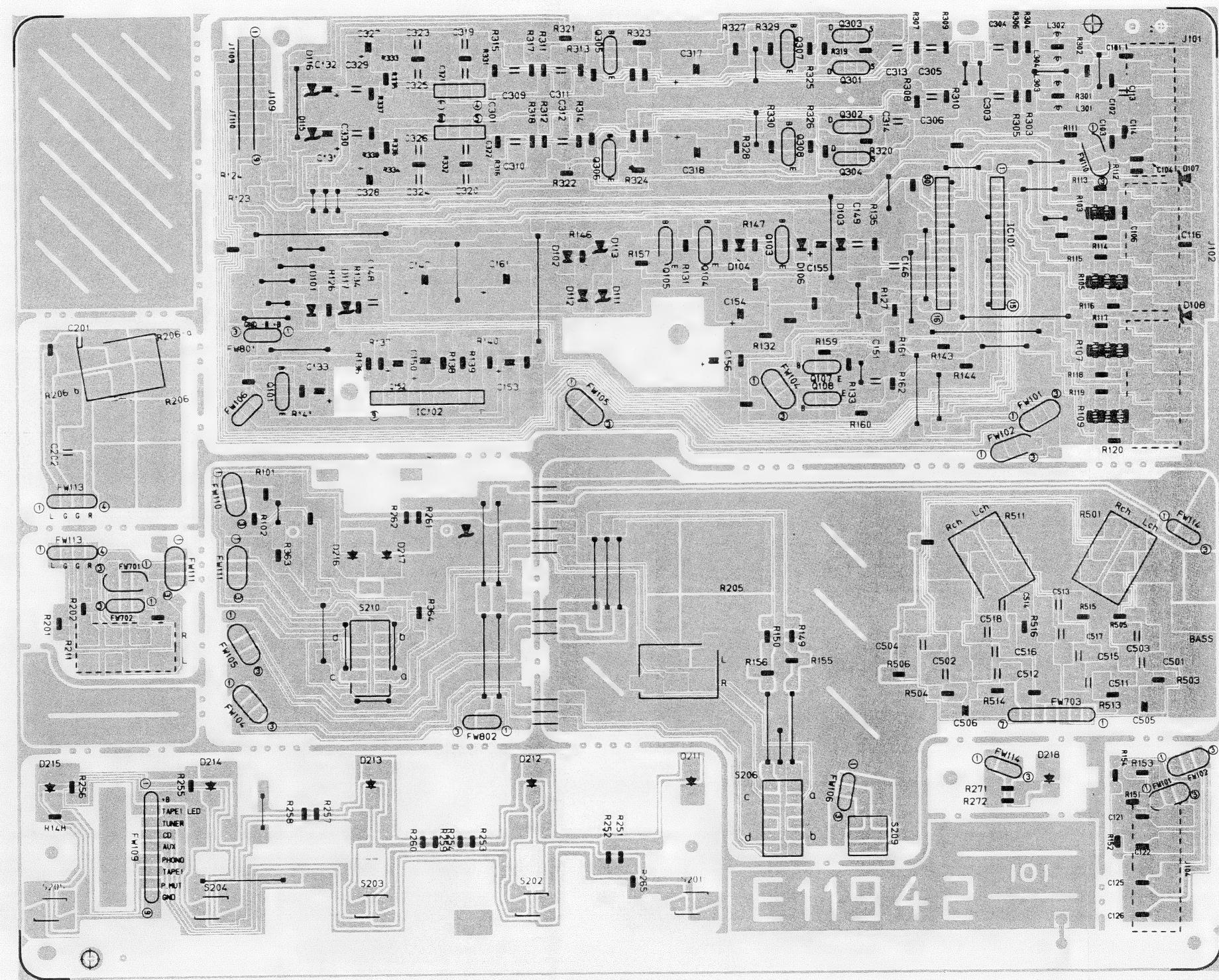


(2) Power Supply Section

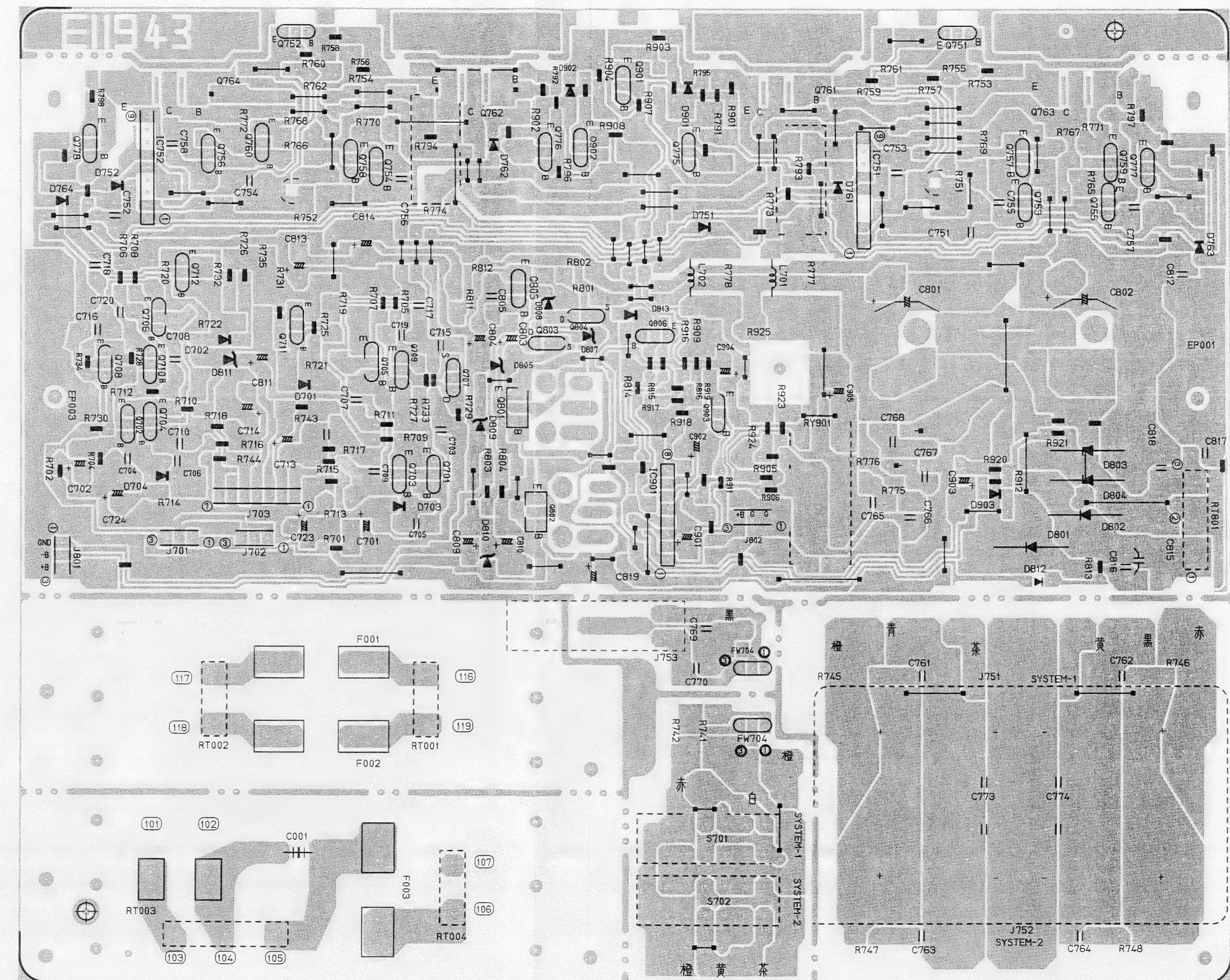


Printed Circuit Boards

■ Source Select PC Board (ENE-056)



■ Main Amplifier PC Board (ENH-127)



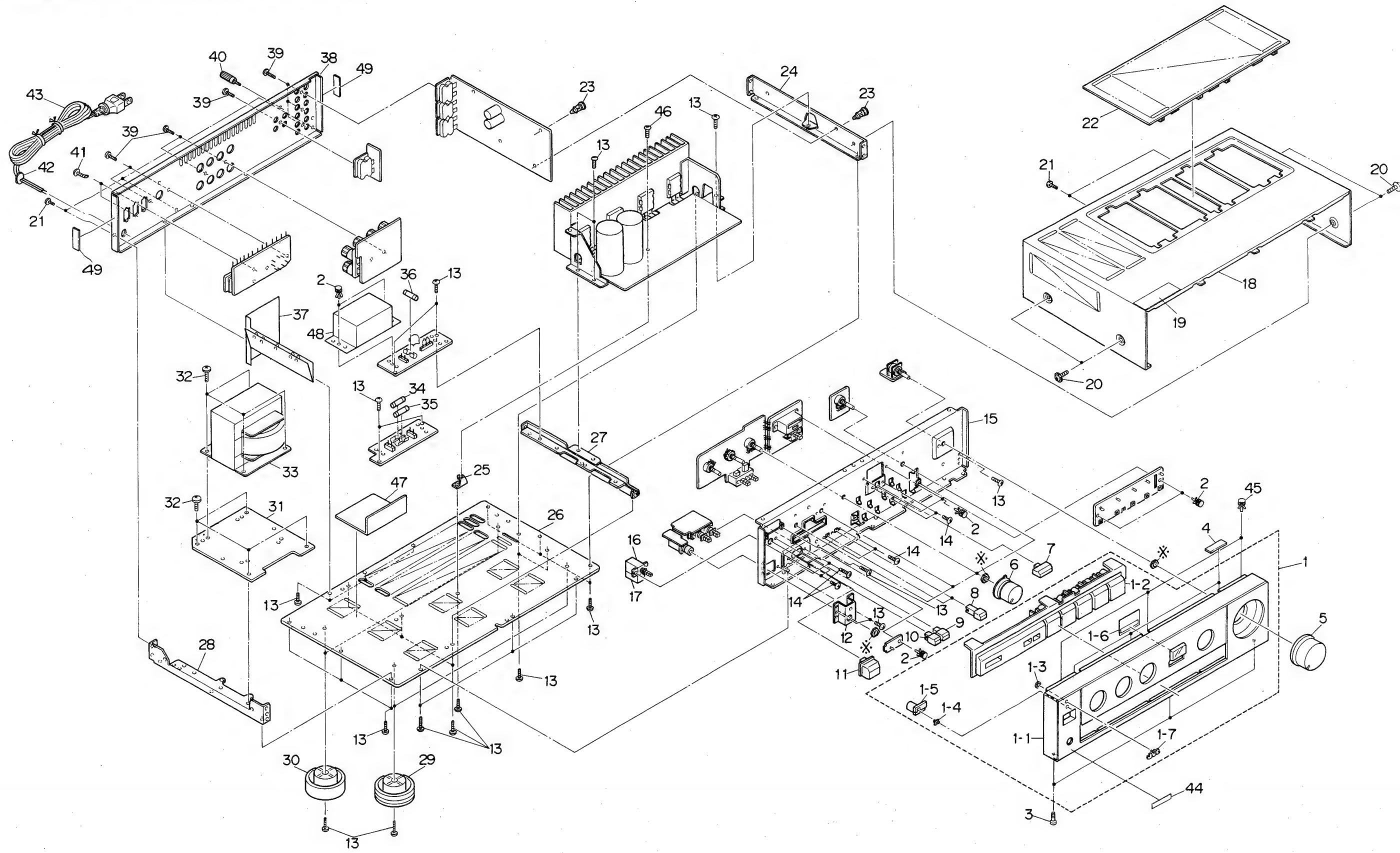
PARTS LIST

Contents

Exploded View and Parts List.....	2-3
Printed Circuit Board Ass'y and Parts List	2-6
■ ENH-127 □ Main Amplifier PC Board Ass'y	2-6
■ TPS-318 [A] Voltage Selector PC Board Ass'y	2-9
■ ENE-056 □ Source Selector PC Board Ass'y	2-10
Accessories List.....	2-12
Packing Materials and Part Numbers.....	2-13

X-411BK

Exploded View and Parts List



* mark indicates attached part.

⚠	Item	Part Number	Part Name	Q'ty	Description	Areas
	1 1-1 1-2 1-3 1-4	EFP-AX411BKE E26391-002 E26332-002 E60912-003 E73522-001	Front Panel Ass'y Front Panel Push Button Ass'y Supeed Nut Indicator	1 1 1 1 1		
	1-5 1-6 1-7 2	E75286-001 E75327-001 E72968-001 E48729-008 E48729-008	Holder Indicator Sheet JVC Mark Plastic Rivet Plastic Rivet	1 1 1 5 7		U Except U
	3 4 5 6 7	SBSG3006M EXO060007N40S E305980-001 E305981-001 E75117-001	Screw Felt Spacer Volume Knob Knob Push Button	3 3 1 4 1	Tone	
	8 9 10 11 12	E75182-001 E75073-002 E75073-001 E75079-001 E75183-001	Push Button Push Button Push Button Power Button Head Phone Bracket	2 1 1 1 1	Tape SPK-2 SPK-1	
	13 14 15 16	SBSG3008CC SBST3006CC E11953-001 QSP1106-004 QSP1106-004BS	Screw Screw Front Bracket Push Switch Push Switch	31 8 1 1 1		Except BS BS
	17 18 19 20	E71004-001 E26336-001 E26336-002 E67000-005 E61660-004	Switch Cover Metal Cover Metal Cover Caution Label Special Screw	1 1 1 1 4		U,A,G E,EF,BS
	21 22 23 24 25	SBSG3008M E24134-008 E303216-001 E305811-001 E68587-008	Screw Grill Fastener Side Bracket Bracket	5 1 2 1 1		E,EF,BS
	26 27 28 29 30	E26273-001 E305812-002 E305810-001 E75088-001 E75088-002	Bottom Cover Center Bracket Side Bracket Foot Foot	1 1 1 2 2	Left Front Rear	
⚠ ⚠ ⚠	31 32 33	E305803-002 E65389-004 ETP1150-34FA ETP1150-34EA ETP1150-34EABS	Trans Bracket Special Screw Power Transformer Power Transformer Power Transformer	1 8 1 1 1		U E,EF,G,A BS
⚠ ⚠ ⚠	34 35 36 37	QMF51A2-3R15S QMF51A2-5R05 QMF51A2-3R15S QMF51E2-3R15SBS E305986-001	Fuse Fuse Fuse Fuse Protect Cover	1 1 1 1 1	F001 F002 F003 F003	U U E,EF,G,A BS
	38 — 39	E26334-003 E26334-004 E303216-190 E73273-001 E73273-001	Rear Panel Rear Panel Rating Label Screw Screw	1 1 1 6 8		U Except U E,EF,G Except U U
⚠ ⚠ ⚠	40 41 42 43	E70078-001 SDSB3008M QHS3876-162 QHS3876-162BS QMP7600-200	GND.Terminal Screw Cord Stopper Cord Stopper Power Cord	1 2 1 1 1		U Except BS BS U
⚠ ⚠ ⚠	44 45	QMP3900-200 QMP2560-244 QMP9017-008BS E49267-001 E48729-009	Power Cord Power Cord Power Cord Origin Marking Label Plastic Rivet	1 1 1 1 3		E,EF,G A BS BS
	46 47 48 49	GBSB3008CC E75353-001 E30617-001 EXO040010R10S10	Screw Protect Cover Protect Cover Spacer	1 1 1 2		Except U Except U

The Marks for Designated Areas

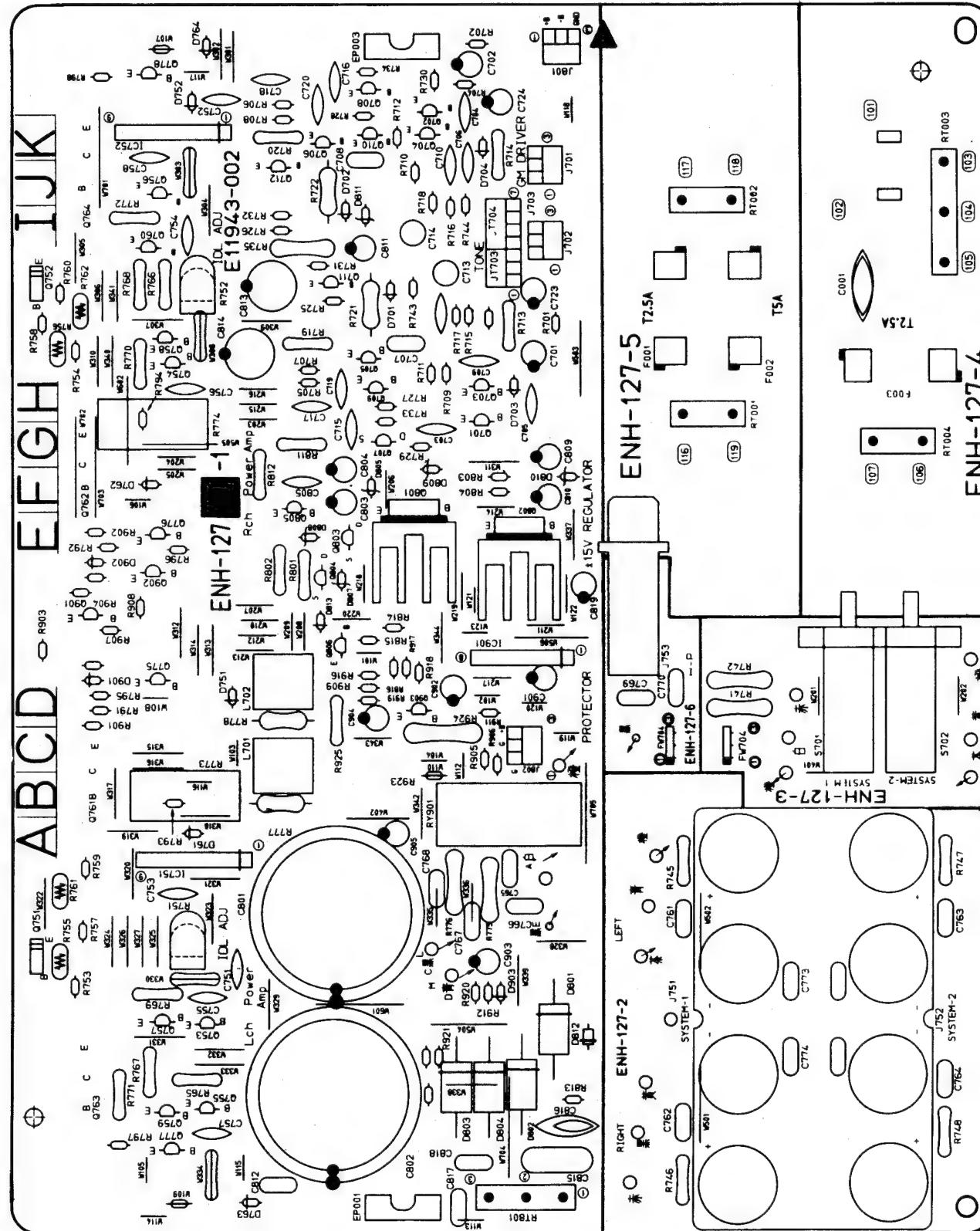
A.....Australia BS.....the U.K.
 G.....West Germany U.....Other Countries
 E_EF.....Continental Europe No mark Indicates all areas.

⚠: Safety Parts

Printed Circuit Board Ass'y and Parts List

ENH-127 Main Amplifier PC Board Ass'y

Note: ENH-127 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENH-127 E	Other Countries
ENH-127 F	Australia, Continental Europe
ENH-127 G	West Germany
ENH-127 H BS	the U.K.

Transistors

△	ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
Q701	2SC2240(A,B)	SILICON	TOSHIBA		
Q702	2SC2240(A,B)	SILICON	TOSHIBA		
Q703	2SC2240(A,B)	SILICON	TOSHIBA		
Q704	2SC2240(A,B)	SILICON	TOSHIBA		
Q705	2SA970(GR,BL)	SILICON	TOSHIBA		
Q706	2SA970(GR,BL)	SILICON	TOSHIBA		
Q707	2SA970(GR,BL)	SILICON	TOSHIBA		
Q708	2SA970(GR,BL)	SILICON	TOSHIBA		
Q709	2SA933LN(R,S)	SILICON	ROHM		
Q710	2SA933LN(R,S)	SILICON	ROHM		
Q711	2SC2240(GR,BL)	SILICON	TOSHIBA		
Q712	2SC2240(GR,BL)	SILICON	TOSHIBA		
Q751	2SD636(Q,R)	SILICON	MATSUSHITA		
Q752	2SD636(Q,R)	SILICON	MATSUSHITA		
Q753	2SC2240(BL)	SILICON	TOSHIBA		
Q754	2SC2240(BL)	SILICON	TOSHIBA		
Q755	2SA970(BL)	SILICON	TOSHIBA		
Q756	2SA970(BL)	SILICON	TOSHIBA		
Q757	2SC2235(O,Y)	SILICON	TOSHIBA		
Q758	2SC2235(O,Y)	SILICON	TOSHIBA		
Q759	2SA965(O,Y)	SILICON	TOSHIBA		
Q760	2SA965(O,Y)	SILICON	TOSHIBA		
Q761	2SD2155LB(R,O)	SILICON	TOSHIBA		
Q762	2SD2155LB(R,O)	SILICON	TOSHIBA		
Q763	2SB1429LB(R,O)	SILICON	TOSHIBA		
Q764	2SB1429LB(R,O)	SILICON	TOSHIBA		
Q775	2SC1740S(R,S)	SILICON	ROHM		
Q776	2SC1740S(R,S)	SILICON	ROHM		
Q777	2SA933S(R,S)	SILICON	ROHM		
Q778	2SA933S(R,S)	SILICON	ROHM		
Q801	2SD2061(F,G)	SILICON	ROHM		
Q802	2SB1187(F,G)	SILICON	ROHM		
Q803	2SK246(GR)	F.E.T	TOSHIBA		
Q804	2SK246(GR)	F.E.T	TOSHIBA		
Q805	2SA933S(R,S)	SILICON	ROHM		
Q806	2SC3068	SILICON	SANYO		
Q901	2SC2389(S,E)	SILICON	ROHM		
Q902	2SC2389(S,E)	SILICON	ROHM		
Q903	2SA564A(R,S)	SILICON	MATSUSHITA		

△ : SAFETY PARTS

I.C.s

△	ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
IC751	VC5022(X,Y)	I.C.	ROHM		
IC752	VC5022(X,Y)	I.C.	ROHM		
IC901	UPC1237HA	I.C.	RYOUSAN		

△ : SAFETY PARTS

Diodes

△	ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
D701	1SS133	SILICON	ROHM		
D702	1SS133	SILICON	ROHM		
D703	1SS133	SILICON	ROHM		
D704	1SS133	SILICON	ROHM		
D751	1SS133	SILICON	ROHM		
D752	1SS133	SILICON	ROHM		
D761	1SS133	SILICON	ROHM		
D762	1SS133	SILICON	ROHM		
D763	1SS133	SILICON	ROHM		
D764	1SS133	SILICON	ROHM		
D801	30D2FC	SILICON	NIHONINTER	E	
D801	30D2FC	SILICON	NIHONINTER	F	
D801	30DF2SFC	SILICON	NIHONINTER	G	
D801	30D2FC	SILICON	NIHONINTER	HBS	
D802	30D2FC	SILICON	NIHONINTER	E	

Diodes

△	ITEM	PART NUMBER	DESCRIPTION	AREA	MAKER
D802	30D2FC	SILICON	NIHONINTER	F	
D802	30DF2SFC	SILICON	NIHONINTER	G	
D802	30D2FC	SILICON	NIHONINTER	HBS	
D803	30D2FC	SILICON	NIHONINTER	E	
D803	30D2FC	SILICON	NIHONINTER	F	
D803	30DF2SFC	SILICON	NIHONINTER	G	
D803	30D2FC	SILICON	NIHONINTER	HBS	
D804	30D2FC	SILICON	NIHONINTER	E	
D804	30D2FC	SILICON	NIHONINTER	F	
D804	30D2FC	SILICON	NIHONINTER	HBS	
D805	MTZ15JC	SILICON	NIHONINTER	F	
D807	MTZ13JC	ZENER	ROHM		
D808	MTZ13JC	ZENER	ROHM		
D809	MTZ18JC	ZENER	ROHM		
D810	MTZ18JC	ZENER	ROHM		
D811	MTZ18JC	ZENER	ROHM		
D812	ERA15-02L19	SILICON	RYOUSOU		
D813	1SS133	SILICON	ROHM		
D901	1SS133	SILICON	ROHM		
D902	1SS133	SILICON	ROHM		
D903	1SS133	SILICON	ROHM		

△ : SAFETY PARTS

Capacitors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QCZ9019-472	4700PF	CERAMIC	F
C001	QCZ9019-472	4700PF	CERAMIC	G
C001	QCZ9019-472BS	4700PF	CERAMIC	HBS
C701	EETB2AM-106E	10MF	100V ELECTRO	
C702	EETB2AM-106E	10MF	100V ELECTRO	
C703	QCS21HJ-101	100PF	50V CERAMIC	
C704	QCS21HJ-101	100PF	50V CERAMIC	
C707	QFN81HK-332	3300PF	50V MYLAR	
C708	QFN81HK-332	3300PF	50V MYLAR	
C709	QCS21HJ-100	10PF	50V CERAMIC	
C710	QCS21HJ-100	10PF	50V CERAMIC	
C713	QEN51HM-475	4.7MF	50V NON POLE	
C714	QEN51HM-475	4.7MF	50V NON POLE	
C715	QCS21HJ-330	33PF	50V CERAMIC	
C716	QCS21HJ-330	33PF	50V CERAMIC	
C717	QCS21HJ-330	33PF	50V CERAMIC	
C718	QCS21HJ-330	33PF	50V CERAMIC	
C719	QCS21HJ-220	22PF	50V CERAMIC	
C720	QCS21HJ-220	22PF	50V CERAMIC	
C723	QETB1CM-476	47MF	16V ELECTRO	
C724	QETB1CM-476	47MF	16V ELECTRO	
C751	QCF21HP-103	0.01MF	50V CERAMIC	
C752	QCF21HP-103	0.01MF	50V CERAMIC	
C753	QCF21HP-103	0.01MF	50V CERAMIC	
C754	QCF21HP-103	0.01MF	50V CERAMIC	
C755	QCS32HJ-680	68PF	500V CERAMIC	
C756	QCS32HJ-680	68PF	500V CERAMIC	
C757	QCS32HJ-680	68PF	500V CERAMIC	
C758	QCS32HJ-680	68PF	500V CERAMIC	
C761	QFN81HK-223	0.022MF	50V MYLAR	G
C762	QFN81HK-223	0.022MF	50V MYLAR	G
C763	QFN81HK-223	0.022MF	50V MYLAR	G
C764	QFN81HK-223	0.022MF	50V MYLAR	G
C765	QFN81HK-104	0.1MF	50V MYLAR	
C766	QFN81HK-104	0.1MF	50V MYLAR	
C767	QFN81HK-104	0.1MF	50V MYLAR	
C768	QFN81HK-104	0.1MF	50V MYLAR	
C769	QCF21HP-222	2200PF	50V CERAMIC	G
C770	QCF21HP-222	2200PF	50V CERAMIC	G
C771	QFN81HK-223	0.022MF	50V MYLAR	G
C772	QFN81HK-223	0.022MF	50V MYLAR	G
C801	EEW6304-109E	10000MF	63V ELECTRO	
C802	EEW6304-109E	10000MF	63V ELECTRO	
C803	QETB1HM-476	47MF	50V ELECTRO	
C804	QETB1HM-476	47MF	50V ELECTRO	
C805	QCS21HJ-101	100PF	50V CERAMIC	
C809	QETB1EM-476	47MF	25V ELECTRO	
C810	QETB1EM-476	47MF	25V ELECTRO	
C811	QETB1EM-106	10MF	25V ELECTRO	
C812	QFN32AK-472	4700PF	100V MYLAR	
C813	QETB1JM-107	100MF	63V ELECTRO	
C814	QETB1JM-107	100MF	63V ELECTRO	
C815	QFH42EK-104	0.1MF	250V M.MYLAR	
C816	QCE22HP-103A	0.01MF	500V CERAMIC	
C817	QFN82AK-472	4700PF	100V MYLAR	
C818	QFN82AK-104	0.1MF	100V MYLAR	
C819	GETB1HM-105	1MF	50V ELECTRO	
C901	GETB1AM-227	220MF	10V ELECTRO	
C902	GETB1HM-226	22MF	16V ELECTRO	
C903	GETB1HM-475	4.7MF	50V ELECTRO	
C904	GETB1HM-226	22MF	50V ELECTRO	
C905	GETB1HM-105	1MF	50V ELECTRO	

△ : SAFETY PARTS

Resistors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	R701	QRD167J-222	2.2K	1/6W CARBON
	R702	QRD167J-222	2.2K	1/6W CARBON
	R703	QRD167J-104	100K	1/6W CARBON
	R704	QRD167J-104	100K	1/6W CARBON
	R705	QRD167J-202	2K	1/6W CARBON
	R706	QRD167J-202	2K	1/6W CARBON
	R707	QRD167J-202	2K	1/6W CARBON
	R708	QRD167J-202	2K	1/6W CARBON
	R709	QRD167J-103	10K	1/6W CARBON
	R710	QRD167J-103	10K	1/6W CARBON
	R711	QRD167J-101	100	1/6W CARBON
△	R712	QRD167J-101	100	1/6W CARBON
△	R713	QRD14CJ-911S	910	1/4W UNF. CARBON
△	R714	QRD14CJ-911S	910	1/4W UNF. CARBON
	R715	QRD167J-163	16K	1/6W CARBON
	R716	QRD167J-163	16K	1/6W CARBON
	R717	QRD167J-823	82K	1/6W CARBON
	R718	QRD167J-823	82K	1/6W CARBON
△	R719	QRD14CJ-121S	120	1/4W UNF. CARBON
△	R720	QRD14CJ-121S	120	1/4W UNF. CARBON
△	R721	QRD125J-822	8.2K	1/2W UNF. CARBON
△	R722	QRD125J-822	8.2K	1/2W UNF. CARBON
	R723	QRD167J-391	390	1/6W CARBON
	R726	QRD167J-391	390	1/6W CARBON
	R727	QRD167J-152	1.5K	1/6W CARBON
	R728	QRD167J-152	1.5K	1/6W CARBON
	R729	QRD167J-333	33K	1/6W CARBON
	R730	QRD167J-333	33K	1/6W CARBON
	R731	QRD167J-391	390	1/6W CARBON
	R732	QRD167J-391	390	1/6W CARBON
	R733	QRD167J-152	1.5K	1/6W CARBON
△	R734	QRD167J-152	1.5K	1/6W CARBON
△	R735	QRG01CJ-392A	3.9K	1W O.M. FILM
△	R741	QRG01CJ-331A	330	1W O.M. FILM
△	R742	QRG01CJ-331A	330	1W O.M. FILM
	R743	QRD167J-104	100K	1/6W CARBON
	R744	QRD167J-104	100K	1/6W CARBON
△	R745	QRZ0077-4R7S	4.7	1/4W UNF. CARBON G
△	R746	QRZ0077-4R7S	4.7	1/4W UNF. CARBON G
△	R747	QRZ0077-4R7S	4.7	1/4W UNF. CARBON G
△	R748	QRZ0077-4R7S	4.7	1/4W UNF. CARBON G
	R751	QVPE601-501	500	0.15W VARIABLE
	R752	QVPE601-501	500	0.15W VARIABLE
	R753	QRD167J-101	100	1/6W CARBON
	R754	QRD167J-101	100	1/6W CARBON
	R755	ERT-D2WFL351S	350	1/4W THERMISTOR
	R756	ERT-D2WFL351S	350	1/4W THERMISTOR
	R757	QRD167J-471	470	1/6W CARBON
	R758	QRD167J-471	470	1/6W CARBON
	R759	QRD167J-391	390	1/6W CARBON
	R760	QRD167J-391	390	1/6W CARBON
	R761	ERT-D2WHL202S	2K	1/4W THERMISTOR
	R762	ERT-D2WHL202S	2K	1/4W THERMISTOR
△	R765	QRZ0077-272	2.7K	1/4W FUSIBLE
△	R766	QRZ0077-272	2.7K	1/4W FUSIBLE
△	R767	QRZ0077-471	470	1/4W FUSIBLE
△	R768	QRZ0077-471	470	1/4W FUSIBLE
△	R769	QRZ0077-100	10	1/4W FUSIBLE
△	R770	QRZ0077-100	10	1/4W FUSIBLE
△	R771	QRZ0077-100	10	1/4W FUSIBLE
△	R772	QRZ0077-100	10	1/4W FUSIBLE
△	R773	ERFO32K-R22	0.22	3W CEMENT
△	R774	ERFO32K-R22	0.22	3W CEMENT
△	R775	QRG01CJ-100A	10	1W O.M. FILM
△	R776	QRG01CJ-100A	10	1W O.M. FILM
△	R777	QRD125J-101	100	1/2W UNF. CARBON G
△	R777	QRD125J-330	33	1/2W UNF. CARBON E
△	R777	QRD125J-330	33	1/2W UNF. CARBON F
△	R777	QRD125J-330	33	1/2W UNF. CARBON HBS
△	R778	QRD125J-101	100	1/2W UNF. CARBON G
△	R778	QRD125J-330	33	1/2W UNF. CARBON E
△	R778	QRD125J-330	33	1/2W UNF. CARBON F
△	R778	QRD125J-330	33	1/2W UNF. CARBON HBS
	R779	QRD167J-621	620	1/6W CARBON
	R792	QRD167J-621	620	1/6W CARBON
	R793	QRD167J-621	620	1/6W CARBON
	R794	QRD167J-621	620	1/6W CARBON
	R795	QRD167J-151	150	1/6W CARBON
	R796	QRD167J-151	150	1/6W CARBON
	R797	QRD167J-151	150	1/6W CARBON

Resistors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
△	R798	QRD167J-151	150	1/6W CARBON
△	R801	QRZ0077-330	33	1/4W FUSIBLE
△	R802	QRZ0077-330	33	1/4W FUSIBLE
△	R803	QRD167J-223	22K	1/6W CARBON
△	R804	QRD167J-203	20K	1/6W CARBON
△	R811	QRZ0077-330	33	1/4W FUSIBLE
△	R812	QRZ0077-330	33	1/4W FUSIBLE
△	R813	QRD167J-123	12K	1/6W CARBON
△	R814	QRD167J-563	56K	1/6W CARBON
△	R815	QRD167J-221	220	1/6W CARBON
	R816	QRD167J-393	39K	1/6W CARBON
	R901	QRD167J-272	2.7K	1/6W CARBON
	R902	QRD167J-272	2.7K	1/6W CARBON
	R903	QRD167J-153	15K	1/6W CARBON
	R904	QRD167J-153	15K	1/6W CARBON
	R905	QRD167J-104	100K	1/6W CARBON
	R906	QRD167J-823	82K	1/6W CARBON
	R907	QRD167J-223	22K	1/6W CARBON
	R908	QRD167J-223	22K	1/6W CARBON
	R909	QRD167J-103	10K	1/6W CARBON
	R911	QRD167J-473	47K	1/6W CARBON
	R912	QRD167J-562	5.6K	1/6W CARBON
	R916	QRD167J-103	10K	1/6W CARBON
	R917	QRD167J-103	10K	1/6W CARBON
	R918	QRD167J-274	270K	1/6W CARBON
	R919	QRD167J-332	3.3K	1/6W CARBON
	R920	QRD167J-393	39K	1/6W CARBON
	R921	QRD167J-153	15K	1/6W CARBON
	R923	QRD167J-101	100	1/6W CARBON
△	R924	QRG02CJ-122A	1.2K	2W O.M. FILM
△	R925	QRZ0077-100	10	1/4W FUSIBLE

△ : SAFETY PARTS

Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		EMG7331-002U	FUSE CLIP	
		EMG7331-002	FUSE CLIP	
		E11943-002	CIRCUIT BOARD	E
		E11943-002	CIRCUIT BOARD	F
		E11943-002	CIRCUIT BOARD	G
		E11943-002BS	CIRCUIT BOARD	HBS
		E300209-030	HEAT SINK	
		E305804-001	INSTRUCTION BOOK	
		E305805-001	INSTRUCTION BOOK	
		E33754-001	TIE BAND	
		E65508-002	TAB	F
		E65508-002	TAB	G
		E65508-002	TAB	HBS
		E70945-H25	HEAT SINK	
		E73525-003	SCREW	
		GBSB3008CC	SCREW	
		SBSB3008CC	SCREW	
		SBSB3008CC	SCREW	
J701		EMV7122-003	CONNECTOR	
J702		EMV7122-003	CONNECTOR	
J751		EMB00TP-801C	SPEAKER TERMINAL	
J752		EMB00TP-801C	SPEAKER TERMINAL	
J753		GMS6A40-021	HEADPHONE JACK	
J801		EMV7122-003	CONNECTOR	
J802		EMV7122-003	CONNECTOR	
L701		EQL0001-1R0	INDUCTOR	
L702		EQL0001-1R0	INDUCTOR	
S701		QST4231-E04	PUSH SWITCH	
S702		QST4231-E04	PUSH SWITCH	
EP001		E70859-001	EARTH PLATE	G
EP003		E70859-001	EARTH PLATE	
FW704		EWR35B-08SST	FLAT WIRE	
JT703		EMV7122-003	CONNECTOR	
JT704		EMV7122-004	CONNECTOR	
RT001		E67764-202	WRAPPING TERMINAL	E

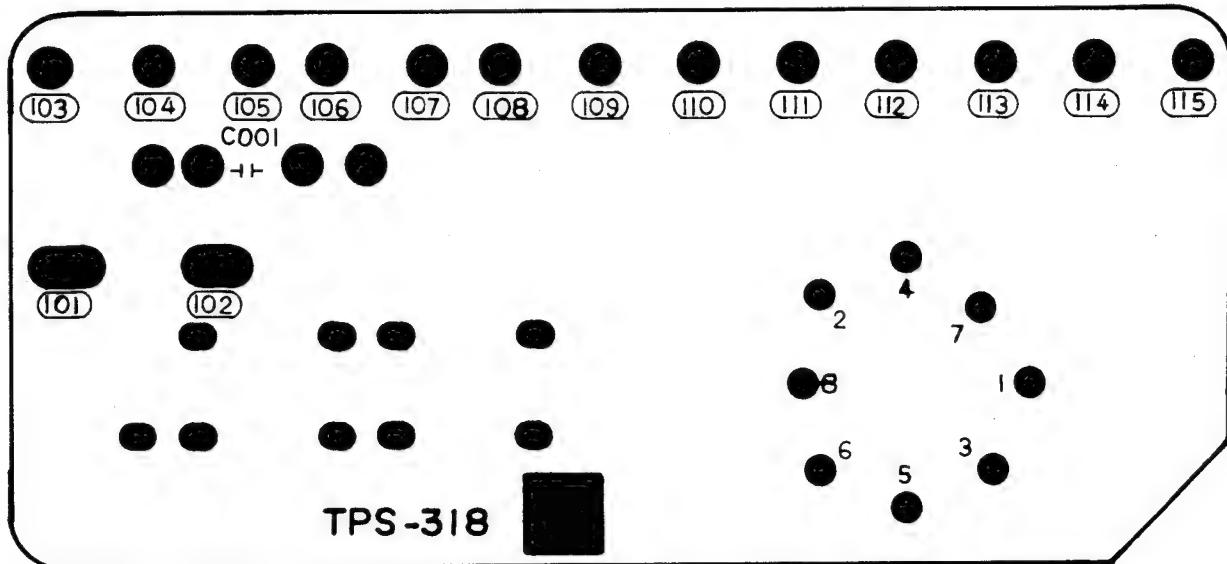
Others

△ ITEM	PART NUMBER	DESCRIPTION	AREA
RT002	E67764-202	WRAPPING TERMINAL	E
RT003	E67764-203	WRAPPING TERMINAL	F
RT003	E67764-203	WRAPPING TERMINAL	G
RT003	E67764-203	WRAPPING TERMINAL	HBS
RT004	E67764-202	WRAPPING TERMINAL	F
RT004	E67764-202	WRAPPING TERMINAL	G
RT004	E67764-202	WRAPPING TERMINAL	HBS
RT801	E67764-103	WRAPPING TERMINAL	
RY901	ESK5D24-218	RELAY	

△ : SAFETY PARTS

■ TPS-318 [A] Voltage Selector PC Board Ass'y

(Except Australia, Continental Europe, West Germany, the U.K.)

**Capacitors**

△ ITEM	PART NUMBER	DESCRIPTION	AREA
C001	QCZ9018-103	0.01MF CERAMIC	

△ : SAFETY PARTS

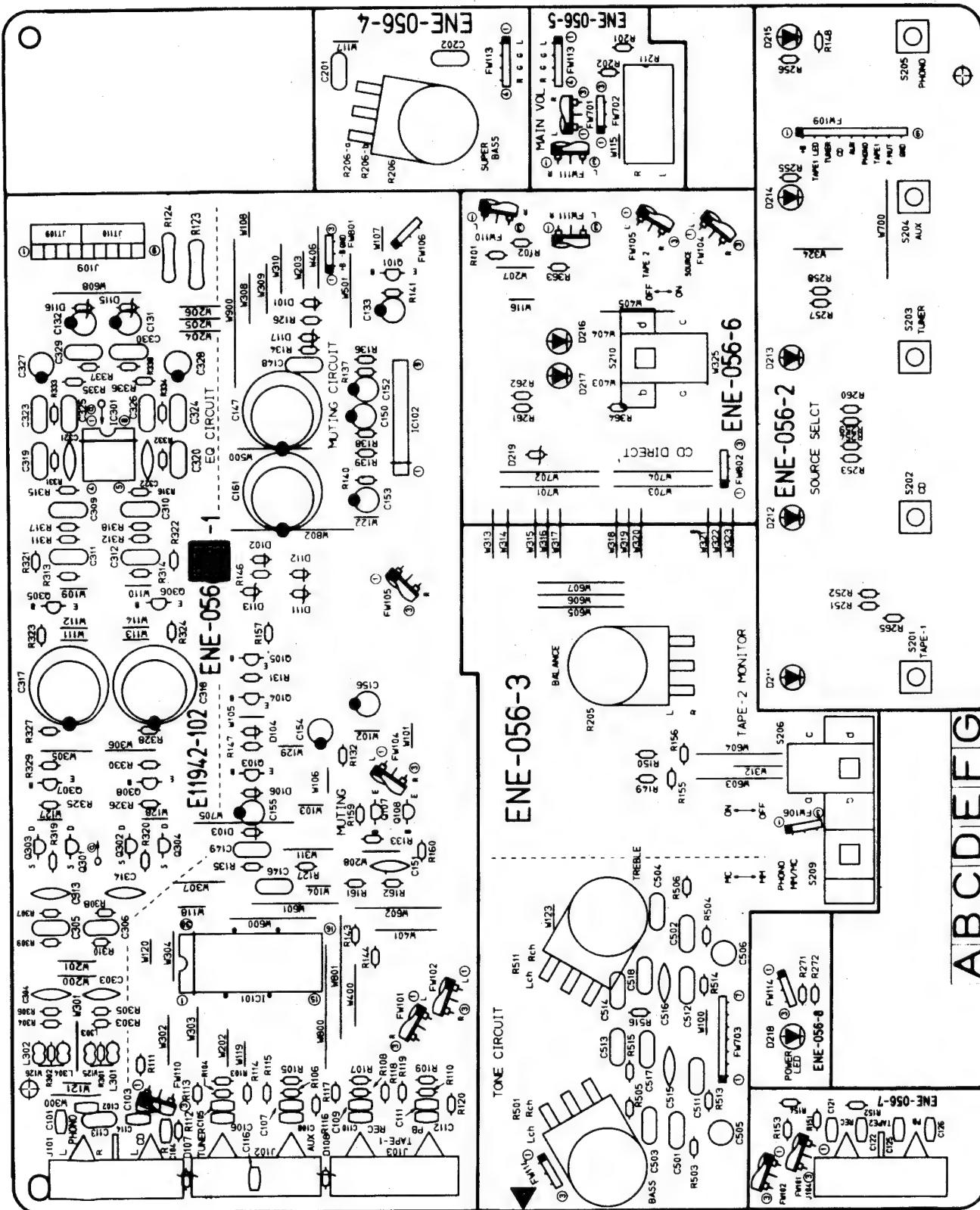
Others

△ ITEM	PART NUMBER	DESCRIPTION	AREA
	E302057-002 E65508-002 E67764-302 E67764-303 E67764-304	CIRCUIT BOARD TAB WRAPPING TERMINAL WRAPPING TERMINAL WRAPPING TERMINAL	
△△	QMC0637-004 QSR0085-006U	AC OUTLET VOLTAGE SELECTOR	

△ : SAFETY PARTS

■ ENE-056 □ Source Selector PC Board Ass'y

Note: ENE-056 □ varies according to the areas employed. See note (1) when placing an order.



Note (1)

PC Board Ass'y	Designated Areas
ENE-056 A	Other Countries
ENE-056 B	Australia, Continental Europe, the U.K.
ENE-056 C	West Germany

Transistors

△ ITEM	PART NUMBER	DESCRIPTION		AREA
		MAKER		
Q101	DTA144ES	SILICON	ROHM	
Q103	2SC2389(S,E)	SILICON	ROHM	
Q104	DTC144ES	SILICON	ROHM	
Q105	DTA144ES	SILICON	ROHM	
Q107	2SC3068	SILICON	SANYO	
Q108	2SC3068	SILICON	SANYO	
Q301	ZSK170(BL)	F.E.T	TOSHIBA	
Q302	ZSK170(BL)	F.E.T	TOSHIBA	
Q303	ZSK170(BL)	F.E.T	TOSHIBA	
Q304	ZSK170(BL)	F.E.T	TOSHIBA	
Q305	ZSD655(E,F)	SILICON	HITACHI	
Q306	ZSD655(E,F)	SILICON	HITACHI	
Q307	ZSD655(E,F)	SILICON	HITACHI	
Q308	ZSD655(E,F)	SILICON	HITACHI	

△ : SAFETY PARTS

I.C.s

△ ITEM	PART NUMBER	DESCRIPTION		AREA
		MAKER		
IC101	LC7818	I.C.	SANYO	
IC102	TA7317P	I.C.	TOSHIBA	
IC301	NJM4560DD	I.C.	JRC	

△ : SAFETY PARTS

Diodes

△ ITEM	PART NUMBER	DESCRIPTION		AREA
		MAKER		
D101	1SS133	SILICON	ROHM	
D102	1SS133	SILICON	ROHM	
D103	1SS133	SILICON	ROHM	
D104	1SS133	SILICON	ROHM	
D106	1SS133	SILICON	ROHM	
D107	MTZ3.3JB	ZENER	ROHM	
D108	MTZ3.3JB	ZENER	ROHM	
D111	1SS133	SILICON	ROHM	
D112	1SS133	SILICON	ROHM	
D113	MTZ5.6JC	ZENER	ROHM	
D115	MTZ13JC	ZENER	ROHM	
D116	MTZ13JC	ZENER	ROHM	
D117	MTZ2.8JC	ZENER	ROHM	
D211	SLR-331VR50F070	L.E.D.	ROHM	
D212	SLR-331DU50F070	L.E.D.	ROHM	
D213	SLR-331DU50F070	L.E.D.	ROHM	
D214	SLR-331DU50F070	L.E.D.	ROHM	
D215	SLR-331DU50F070	L.E.D.	ROHM	
D216	SLR-34YC50F165	L.E.D.		
D217	SLR-34YC50F165	L.E.D.		
D218	SLR-331DU70F070	L.E.D.	ROHM	
D219	MTZ5.1JC	ZENER	ROHM	

△ : SAFETY PARTS

Capacitors

△ ITEM	PART NUMBER	DESCRIPTION		AREA
		MAKER		
C101	QCBB1HK-221	220PF	50V	CERAMIC
C102	QCBB1HK-221	220PF	50V	CERAMIC
C103	QCBB1HK-471	470PF	50V	CERAMIC
C104	QCBB1HK-471	470PF	50V	CERAMIC
C105	QCBB1HK-221	220PF	50V	CERAMIC
C106	QCBB1HK-221	220PF	50V	CERAMIC
C107	QCBB1HK-221	220PF	50V	CERAMIC
C108	QCBB1HK-221	220PF	50V	CERAMIC
C109	QCBB1HK-221	220PF	50V	CERAMIC
C110	QCBB1HK-221	220PF	50V	CERAMIC

Capacitors

△ ITEM	PART NUMBER	DESCRIPTION		AREA
C111	QCBB1HK-221	220PF	50V	CERAMIC
C112	QCBB1HK-221	220PF	50V	CERAMIC
C113	QFN81HJ-103	0.01MF	50V	MYLAR
C114	QCB81EZ-223	0.022MF	25V	CERAMIC
C121	QCBB1HK-221	220PF	50V	CERAMIC
C122	QCBB1HK-221	220PF	50V	CERAMIC
C126	QCBB1HK-221	220PF	50V	CERAMIC
C131	QETB1EM-107	100MF	25V	ELECTRO
C132	QETB1EM-107	100MF	25V	ELECTRO
C133	QETB1HM-106	10MF	50V	ELECTRO
C146	QFN81HJ-562	5600PF	50V	MYLAR
C147	QETB0JM-228	2200MF	6.3V	ELECTRO
C148	QFN81HJ-562	5600PF	50V	MYLAR
C149	QFN81HK-473	0.047MF	50V	MYLAR
C150	QETB1HM-225	2.2MF	50V	ELECTRO
C152	QETB1CM-226	22MF	16V	ELECTRO
C153	QETB1HM-475	4.7MF	50V	ELECTRO
C154	QETB1CM-107	100MF	16V	ELECTRO
C155	QETB1HM-474	0.47MF	50V	ELECTRO
C156	QETB1HM-475	4.7MF	50V	ELECTRO
C201	QVF81HJ-104	0.1MF	50V	T.FILM
C202	QVF81HJ-104	0.1MF	50V	T.FILM
C303	QCS21HJ-151	150PF	50V	CERAMIC
C304	QCS21HJ-151	150PF	50V	CERAMIC
C305	QFN81HK-103	0.01MF	50V	MYLAR
C306	QFN81HK-103	0.01MF	50V	MYLAR
C309	QFN81HK-392	3900PF	50V	MYLAR
C310	QFN81HK-392	3900PF	50V	MYLAR
C311	QFN81HK-822	8200PF	50V	MYLAR
C312	QFN81HK-822	8200PF	50V	MYLAR
C313	QCS21HJ-151	150PF	50V	CERAMIC
C314	QCS21HJ-151	150PF	50V	CERAMIC
C317	QETB0JM-228	2200MF	6.3V	ELECTRO
C318	QETB0JM-228	2200MF	6.3V	ELECTRO
C319	QFN81HJ-472	4700PF	50V	MYLAR
C320	QFN81HJ-472	4700PF	50V	MYLAR
C321	QCS21HJ-331	330PF	50V	CERAMIC
C322	QCS21HJ-331	330PF	50V	CERAMIC
C323	QFN81HK-153	0.015MF	50V	MYLAR
C324	QFN81HJ-153	0.015MF	50V	MYLAR
C325	QFN81HJ-272	2700PF	50V	MYLAR
C326	QFN81HJ-272	2700PF	50V	MYLAR
C327	EETB2AM-106E	10MF	100V	ELECTRO
C328	EETB2AM-106E	10MF	100V	ELECTRO
C329	QFN81HJ-222	2200PF	50V	MYLAR
C330	QFN81HJ-222	2200PF	50V	MYLAR
C501	QFN81HK-153	0.015MF	50V	MYLAR
C502	QFN81HK-153	0.015MF	50V	MYLAR
C503	QFN81HK-823	0.082MF	50V	MYLAR
C504	QFN81HK-823	0.082MF	50V	MYLAR
C505	QEN51HM-475	4.7MF	50V	NON POLE
C506	QEN51HM-475	4.7MF	50V	NON POLE
C511	QFN81HK-332	3300PF	50V	MYLAR
C512	QFN81HK-332	3300PF	50V	MYLAR
C513	QFN81HK-183	0.018MF	50V	MYLAR
C514	QFN81HK-183	0.018MF	50V	MYLAR
C515	QCS21HJ-221	220PF	50V	CERAMIC
C516	QCS21HJ-221	220PF	50V	CERAMIC
C517	QFN81HK-122	1200PF	50V	MYLAR
C518	QFN81HK-122	1200PF	50V	MYLAR

△ : SAFETY PARTS

△ ITEM	PART NUMBER	DESCRIPTION		AREA
R101	QRD167J-105	1M	1/6W	CARBON
R102	QRD167J-105	1M	1/6W	CARBON
R103	QRD167J-105	1M	1/6W	CARBON
R104	QRD167J-105	1M	1/6W	CARBON
R105	QRD167J-105	1M	1/6W	CARBON
R106	QRD167J-105	1M	1/6W	CARBON
R107	QRD167J-105	1M	1/6W	CARBON
R108	QRD167J-105	1M	1/6W	CARBON
R109	QRD167J-105	1M	1/6W	CARBON
R110	QRD167J-105	1M	1/6W	CARBON
R111	QRD167J-471	470	1/6W	CARBON
R112	QRD167J-471	470	1/6W	CARBON
R113	QRD167J-471	470	1/6W	CARBON
R114	QRD167J-471	470	1/6W	CARBON
R115	QRD167J-471	470	1/6W	CARBON
R116	QRD167J-471	470	1/6W	CARBON
R117	QRD167J-471	470	1/6W	CARBON
R118	QRD167J-471	470	1/6W	CARBON
R119	QRD167J-471	470	1/6W	CARBON
R120	QRD167J-471	470	1/6W	CARBON

Resistors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
△	R123	QRZ0077-101	100	1/4W FUSIBLE
△	R124	QRZ0077-101	100	1/4W FUSIBLE
	R126	QRD167J-104	100K	1/6W CARBON
	R127	QRD167J-104	100K	1/6W CARBON
	R131	QRD167J-103	10K	1/6W CARBON
	R132	QRD167J-103	10K	1/6W CARBON
	R134	QRD167J-103	10K	1/6W CARBON
	R135	QRD167J-474	470K	1/6W CARBON
	R136	QRD167J-562	5.6K	1/6W CARBON
	R137	QRD167J-473	47K	1/6W CARBON
	R138	QRD167J-392	3.9K	1/6W CARBON
	R139	QRD167J-104	100K	1/6W CARBON
	R140	QRD167J-104	100K	1/6W CARBON
	R141	QRD167J-223	22K	1/6W CARBON
	R143	QRD167J-102	1K	1/6W CARBON
	R144	QRD167J-102	1K	1/6W CARBON
	R146	QRD167J-122	1.2K	1/6W CARBON
	R147	QRD167J-473	47K	1/6W CARBON
	R148	QRD167J-273	27K	1/6W CARBON
	R149	QRD167J-471	470	1/6W CARBON
	R150	QRD167J-471	470	1/6W CARBON
	R151	QRD167J-105	1M	1/6W CARBON
	R152	QRD167J-105	1M	1/6W CARBON
	R153	QRD167J-471	470	1/6W CARBON
	R154	QRD167J-471	470	1/6W CARBON
	R155	QRD167J-105	1M	1/6W CARBON
	R156	QRD167J-105	1M	1/6W CARBON
	R157	QRD167J-102	1K	1/6W CARBON
	R159	QRD167J-333	33K	1/6W CARBON
	R160	QRD167J-333	33K	1/6W CARBON
	R161	QRD167J-105	1M	1/6W CARBON
	R162	QRD167J-105	1M	1/6W CARBON
	R201	QRD167J-103	10K	1/6W CARBON
	R202	QRD167J-103	10K	1/6W CARBON
	R205	QVDB87M-EF5B	250K	VARIABLE
	R206	QVDB87A-E24B	20K	VARIABLE
	R211	QVD8A7B-AF5VA	250K	VARIABLE
	R251	QRD167J-122	1.2K	1/6W CARBON
	R252	QRD167J-122	1.2K	1/6W CARBON
	R253	QRD167J-122	1.2K	1/6W CARBON
	R254	QRD167J-122	1.2K	1/6W CARBON
	R255	QRD167J-122	1.2K	1/6W CARBON
	R256	QRD167J-122	1.2K	1/6W CARBON
	R257	QRD167J-122	1.2K	1/6W CARBON
	R258	QRD167J-122	1.2K	1/6W CARBON
	R259	QRD167J-122	1.2K	1/6W CARBON
	R260	QRD167J-122	1.2K	1/6W CARBON
	R261	QRD167J-122	1.2K	1/6W CARBON
	R262	QRD167J-112	1.1K	1/6W CARBON
	R265	QRD167J-104	100K	1/6W CARBON
	R271	QRD167J-132	1.3K	1/6W CARBON
	R272	QRD167J-152	1.5K	1/6W CARBON
	R301	QRD167J-102	1K	1/6W CARBON
	R302	QRD167J-102	1K	1/6W CARBON
	R303	QRD167J-473	47K	1/6W CARBON
	R304	QRD167J-473	47K	1/6W CARBON
	R305	QRD167J-471	470	1/6W CARBON
	R306	QRD167J-471	470	1/6W CARBON
	R307	QRD167J-5R6	5.6	1/6W CARBON
	R308	QRD167J-5R6	5.6	1/6W CARBON
	R309	QRD167J-101	100	1/6W CARBON
	R310	QRD167J-101	100	1/6W CARBON
	R311	QRD167J-562	5.6K	1/6W CARBON
	R312	QRD167J-562	5.6K	1/6W CARBON
	R313	QRD167J-270	27	1/6W CARBON
	R314	QRD167J-270	27	1/6W CARBON
	R315	QRD167J-561	560	1/6W CARBON
	R316	QRD167J-561	560	1/6W CARBON
	R317	QRD167J-562	5.6K	1/6W CARBON
	R318	QRD167J-562	5.6K	1/6W CARBON

Resistors

△	ITEM	PART NUMBER	DESCRIPTION	AREA
	R319	QRD167J-222	2.2K	1/6W CARBON
	R320	QRD167J-222	2.2K	1/6W CARBON
	R321	QRD167J-272	2.7K	1/6W CARBON
	R322	QRD167J-272	2.7K	1/6W CARBON
	R323	QRD167J-273	27K	1/6W CARBON
	R324	QRD167J-273	27K	1/6W CARBON
	R325	QRD167J-273	27K	1/6W CARBON
	R326	QRD167J-273	27K	1/6W CARBON
	R327	QRD167J-180	18	1/6W CARBON
	R328	QRD167J-180	18	1/6W CARBON
	R329	QRD167J-221	220	1/6W CARBON
	R330	QRD167J-221	220	1/6W CARBON
	R331	QRD167J-153	15K	1/6W CARBON
	R332	QRD167J-153	15K	1/6W CARBON
	R333	QRD167J-184	180K	1/6W CARBON
	R334	QRD167J-184	180K	1/6W CARBON
	R335	QRD167J-471	470	1/6W CARBON
	R336	QRD167J-471	470	1/6W CARBON
	R501	QVDB87C-E15B	100K	VARIABLE
	R503	QRD167J-203	20K	1/6W CARBON
	R504	QRD167J-203	20K	1/6W CARBON
	R505	QRD167J-362	3.6K	1/6W CARBON
	R506	QRD167J-362	3.6K	1/6W CARBON
	R511	QVDB87C-E15B	100K	VARIABLE
	R513	QRD167J-472	4.7K	1/6W CARBON
	R514	QRD167J-472	4.7K	1/6W CARBON
	R515	QRD167J-821	820	1/6W CARBON
	R516	QRD167J-821	820	1/6W CARBON

Others

△	ITEM	PART NUMBER	DESCRIPTION	AREA
		E11942-102	CIRCUIT BOARD	
		E305983-001	HOLDER	
J101		EMNOOTV-405A	4P PIN JACK	
J102		EMNOOTV-402A	4P PIN JACK	
J103		EMNOOTV-402A	4P PIN JACK	
J104		EMNOOTV-402A	4P PIN JACK	
L301		EQL4004-220	INDUCTOR	C
L302		EQL4004-220	INDUCTOR	C
L303		EQL4004-220	INDUCTOR	C
L304		EQL4004-220	INDUCTOR	C
S201		ESP0001-018	TACT SWITCH	
S202		ESP0001-018	TACT SWITCH	
S203		ESP0001-018	TACT SWITCH	
S204		ESP0001-018	TACT SWITCH	
S205		ESP0001-018	TACT SWITCH	
S206		GSTL251-E01	PUSH SWITCH	
S210		QSTL101-E04	PUSH SWITCH	
FW101		EWR23C-20NN	FLAT WIRE	
FW102		EWR23C-20NN	FLAT WIRE	
FW104		EWR23C-30NN	FLAT WIRE	
FW105		EWR23C-25NN	FLAT WIRE	
FW106		EWR33B-35SSST	FLAT WIRE	
FW109		EWR39B-20KST	FLAT WIRE	
FW110		EWR23C-35NN	FLAT WIRE	
FW111		EWR23C-16NN	FLAT WIRE	
FW113		EWR34B-20SSST	FLAT WIRE	
FW114		EWR33B-13SSST	FLAT WIRE	
FW701		EWR23C-10JN	FLAT WIRE	
FW702		EWR33B-13KST	FLAT WIRE	
FW703		EWR37B-35KST	FLAT WIRE	
FW801		EWR33B-10KST	FLAT WIRE	
FW802		EWR33B-13KST	FLAT WIRE	
JT109		EMV7122-004	CONNECTOR	
JT110		EMV7122-005	CONNECTOR	

△ : SAFETY PARTS

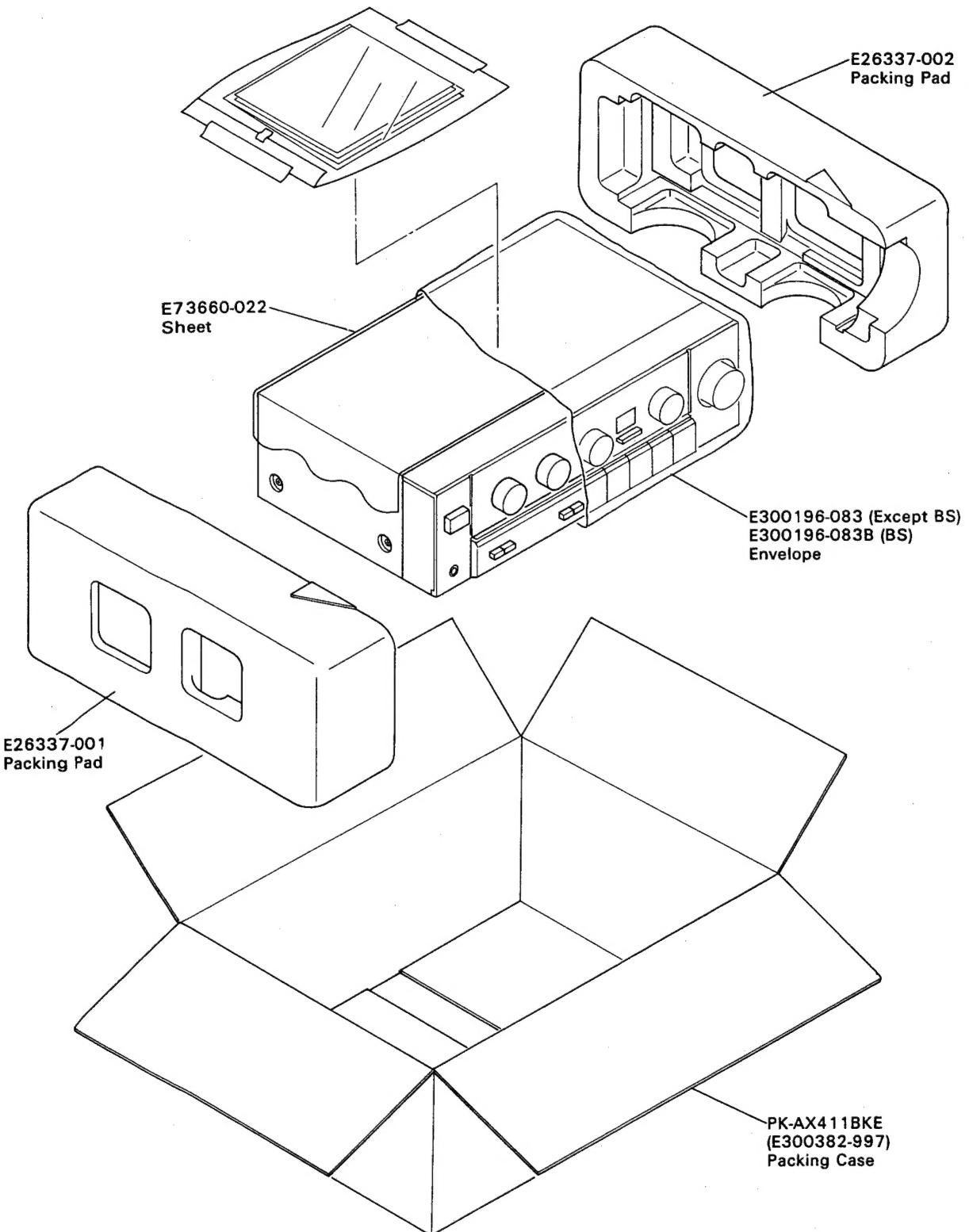
Accessories List

⚠	Part Number	Part Name	Q'ty	Description	Areas
	E30580-1517A E30580-1517ABS BT20064A BT20029C BT20060	Insutrition Book Insutrition Book Warranty Card Warranty Card Warranty Card	1 1 1 1 1	for Australia	Except BS BS G A BS
⚠	BT20098 BT20066A E43486-340A QZL1008-001 E04056	Warranty Card EEC Agency Safety Sheet FTZ Insutrition Sheet Siemens Plug	1 1 1 1 1	for New Zealand	A G , BS BS G U
	E35497-019 E41202-2 E41202-2B	Caution Sheet Envelope Envelope	1 1 1	220V	U Except BS BS

⚠: Safety Parts

The Marks for Designated Areas		
A.....	Australia	BS.....the U.K.
G.....	West Germany	U.....Other Countries
E , EF.....	Continental Europe	No mark Indicates all areas.

Packing Materials and Part Numbers



The Marks for Designated Areas

A.....	Australia	BS.....	the U.K.
G.....	West Germany	U.....	Other Countries
E , EF.....	Continental Europe	No mark Indicates all areas.	